



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI-ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE
2025_1 EXAMINATION.....

COURSE CODE: EHS503

COURSE TITLE: WATER/AIR QUALITY MANAGEMENT

COURSE UNITS: 2 CREDIT UNITS

TIME ALLOWED: 1 ½ HOURS

TOTAL SCORE: 70 MARKS

INSTRUCTION: ANSWER ALL QUESTIONS

Q1 (a). Depending on the information required and the data availability, different types of dispersion models can be used to assess the impact of pollutant sources on air quality.

i.	Describe three types of the dispersion models citing relevant examples	18 marks
ii.	List and describe any three of the data input requirements	6 marks
(b).	Mention any two main tools for air quality assessment	1 mark

Q2 (a). Briefly discuss Air Quality Index **10 marks**

(b). Write short notes on the following measurement of air pollution

i.	Passive sampling methods	4 marks
ii.	Active sampling methods	4 marks
iii.	Remote optical methods	4 marks

(c). When air quality indices record high levels, government agencies deal with such instances by taking some measures. Highlight three of these measures **3 marks**

Q3 (a). With respect to pollution, define the following:

i.	Emission	ii. Exceedance	iii. Photolysis	iv. Classic smog
v.	Particulate matter	5 marks		

(b). Explain the processes most commonly used for supplemental removal of residual suspended solids from the effluents of chemical treatment processes **15 marks**